

Successful Happy Aging: A Literature Mapping with Bibliometric Analysis Using VoS Viewer

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Abstract: Happiness is a central goal for the elderly, with a strong focus on achieving a high quality of life as they age. In this demographic, happiness is often shaped by a lifetime of experiences. This study aims to expand the "Happy Aging" literature by analyzing recent academic publications. A total of 567 articles published between 2021 and 2024 were reviewed and sourced from Google Scholar (200 articles), PubMed (101 articles), Scopus (6 articles), and Dimensions (260 articles). The keywords used in the search were "elderly OR aging" and "happy AND policy," with articles restricted to those published between 2019 and 2024. A bibliometric analysis approach was employed, examining sources, authors, and keyword relevance, with visualizations created using VOS Viewer software. The findings reveal that various factors, including perceptions, geographic location, access to information, mental health, support systems, country, services, group dynamics, and emotional well-being, influence success in achieving happiness in old age. Understanding these factors, particularly from the perspective of the elderly, is crucial for preparing society with an aging population. Future research faces the challenge of identifying ways to provide effective support through family, social, and religious systems, empower the elderly, and address issues related to mental health, living conditions, and overall health.

Keywords: Bibliometric Analysis; Elderly OR Aging; Happiness; Policy

INTRODUCTION

In the past two decades, scientific research on happiness has significantly increased. Defining happiness is challenging due to its many interrelated components. One influential taxonomy identifies three broad aspects of subjective well-being. The first is affective well-being, which encompasses feelings of joy, pleasure, and vitality. The second is eudaimonic well-being, a more complex concept that includes a sense of purpose, meaningfulness, and fulfillment in life. The third is evaluative well-being, which reflects personal judgments about life satisfaction and quality of life. Although these three components are moderately correlated, it is widely recognized that pleasure and enjoyment do not always coincide with a sense that life is worthwhile, and vice versa. Some researchers combine these elements into broader constructs, such as thriving, which involves life satisfaction, meaning and purpose, character, virtue, and close social relationships.

There is a clear link between happiness and good health, as poor health can impair one's ability to experience happiness. This association is particularly relevant in old age, when vulnerability to health

issues increases, and declines in physical abilities and cognitive reserves, alongside chronic biological stress, raise the risks of regulatory disturbances. For the elderly, maintaining functional abilities that foster happiness and well-being is essential. Promoting “Happy Aging” is a focal point of the World Health Organization (WHO) from 2015 to 2030, emphasizing the need for cross-sector action to support the elderly as valuable resources to their families, communities, and the economy (World Health Organization (WHO), 2020).

The elderly population in Indonesia reached 24 million in 2018, positioning the country among those with significant aging populations. By 2050, this number is expected to rise to 77 million, or 23 percent of the total population (The Prakarsa, 2019). According to data from the Central Statistics Agency (BPS), the percentage of elderly people in Indonesia reached 11.75% in 2023, marking a 1.27% increase from the previous year.

Research on happiness among the elderly frequently explores various factors that contribute to well-being, such as family, financial, spiritual, social, physical, and mental health support (“Beyond ‘Productive Aging’: An Argument for ‘Happy Aging,’” 2023; Jitdorn et al., 2021)

Unlike previous studies, this research combines bibliometric analysis with the concept of successful aging to achieve happiness. Limited research has applied bibliometric analysis to study the factors contributing to happiness in the elderly. Bibliometric analysis is a powerful method for mining and analyzing large volumes of scientific data, providing insights into the evolution of a field and highlighting emerging areas of interest (Donthu et al., 2021).

METHOD

This study is a descriptive qualitative research project using bibliometric methods to analyze the development of research topics related to happiness among the elderly. Bibliometric analysis allows researchers to uncover emerging trends in article and journal performance, collaboration patterns, research networks, and the intellectual structure within specific fields of literature (Donthu et al., 2021). This method provides a deeper understanding of the characteristics of publications by grouping them based on authors, keywords, themes, and country of origin.

The stages of this research include determining keywords, reviewing search results, compiling statistical data, and analyzing findings. The research data was sourced from Google Scholar, PubMed, Scopus, and Dimensions.

To conduct the data search, we used Publish or Perish (PoP) and VOS Viewer software. Given the substantial body of research on happiness in the elderly, this approach offered a valuable opportunity to compile relevant studies. The initial data collection involved opening the PoP application and entering

the keywords "elderly OR aging" AND "happy OR happiness" within the 2021–2024 timeframe, using the Google Scholar search engine to gather 200 articles. Additionally, a search on PubMed using "elderly OR aging" AND "happy AND policy" yielded 101 articles, while Scopus provided six articles under "elderly OR aging" AND "happy." Finally, Dimensions contributed 206 articles. In total, 567 articles, including journal articles and conference papers in RIS data format, were selected for analysis using VOS Viewer.

RESULTS AND DISCUSSION

A. Conducting Bibliometric Analysis

After collecting the data, keywords were organized and processed using Mendeley to ensure a structured approach to bibliometric analysis. The final step involved conducting the bibliometric analysis with VOSviewer software, specifically utilizing the co-occurrence feature.

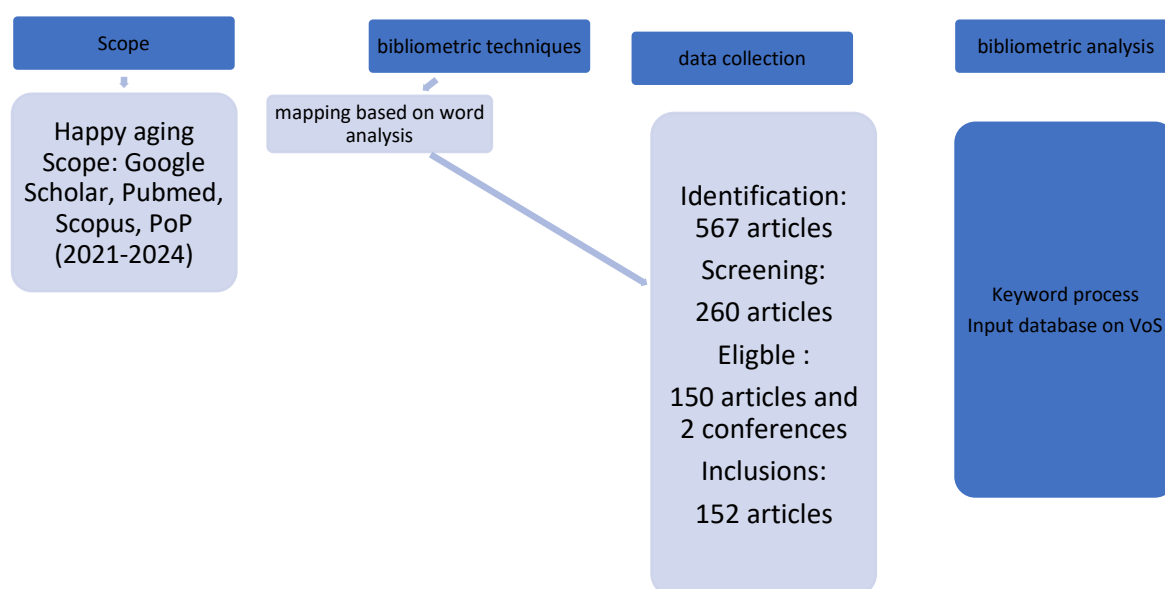


Figure 1 Bibliometric Steps (Primary Data Sources processed; 2024)

B. VOS Viewer Software Results

The mapping process in VOSviewer includes three types of visualizations: network visualization, overlay visualization, and density visualization (Liao et al., 2018) This section presents the results of the descriptive analysis and evaluation. The combined data from Dimensions and PoP was analyzed using VOSviewer software.

Network Visualization

For this study, keywords were set to a minimum occurrence threshold of 5. Of 160 keywords, only 54 met this criterion and were interrelated.

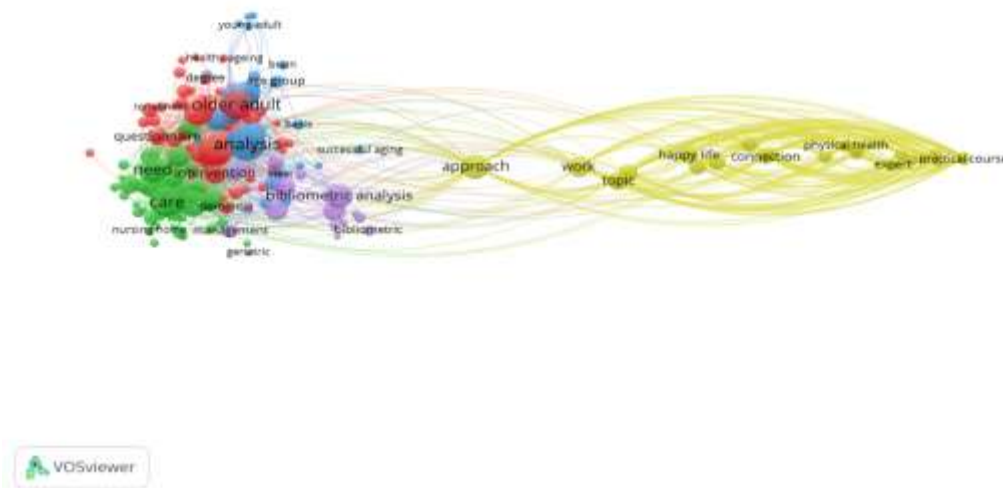


Figure 2. Network Visualization

Each keyword is represented by a colored circle, where the color differentiates clusters, and the size indicates the frequency of keyword occurrence. Larger circles denote higher-frequency keywords. Figure 2 highlights two prominent keywords with larger circles, such as analysis and population, indicating their high frequency in the data collected.

The themes of analysis and population are interconnected with various sub-topics, as shown by the network links between them. The analysis cluster, for example, connects to keywords like bibliometric analysis, care, and older adults, among others. In the population cluster, related terms include happy life, needs, care, facilities, and family caregiver. The analysis identified 54 items divided into five distinct clusters by setting a minimum keyword occurrence value of five. Below is an overview of these clusters and their associated items.

Cluster	Number of keywords	Keywords
1	12	Dementia, gender, happy, emotional support, depressive symptom, gender, healthy ageing, loneliness, mental health, older adult, contribution, rural area
2	20	Care, caregiver, death, elderly individual, characteristic, family caregiver, home, facility, challenge, autonomy, hospital, information, knowledge, long-term care, mobility, nursing home, physician, service, training
3	10	Age group, anxiety, happy face, place, performance, successful aging, perception, interaction, positivity effect, trust
4	9	Chronic disease, forgiveness, happy life, mindfulness, nutrition, optimism, physical activity, discipline, physical health
5	3	Bibliometric analysis, country, geriatric, management

Overlay Visualization

The VOSviewer overlay Visualization feature enables a view of publication trends over time, specifically for studies on happiness among seniors. Figure 3 illustrates this.

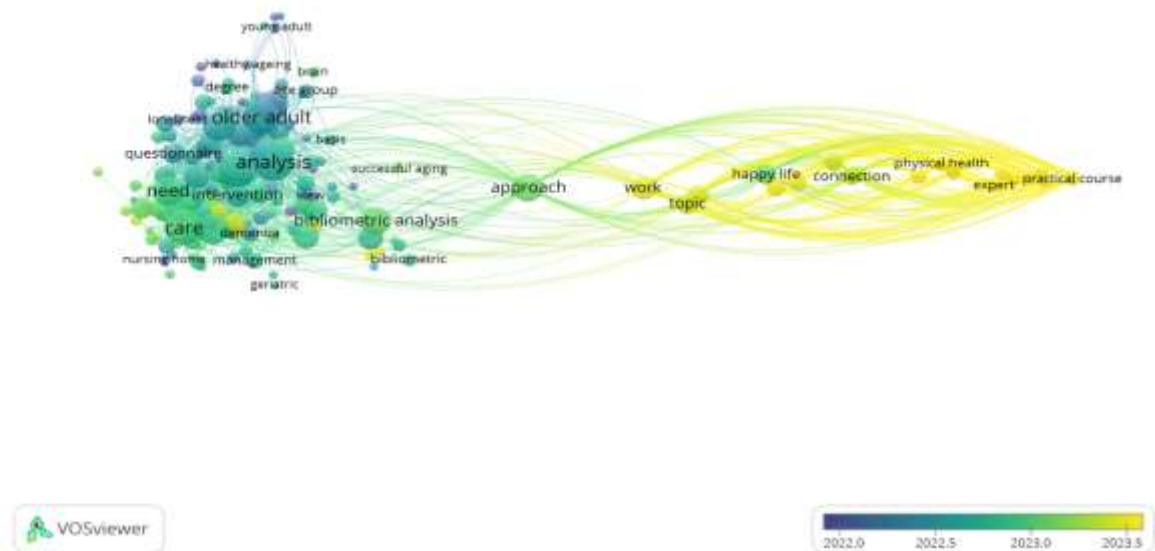


Figure 3. Overlay Visualization

In Figure 3, the overlay network depicts keyword distributions over time, represented by colors based on year. Keywords from 2022 are shaded in blue, showing prominent interconnected lines.

Creativity has the largest network of connections, indicating its frequent use in research related to successful aging and happiness among the elderly.

Density Visualization

When using the density visualization feature in VOSviewer, Figure 4 shows a clear distribution of research themes, as follows:

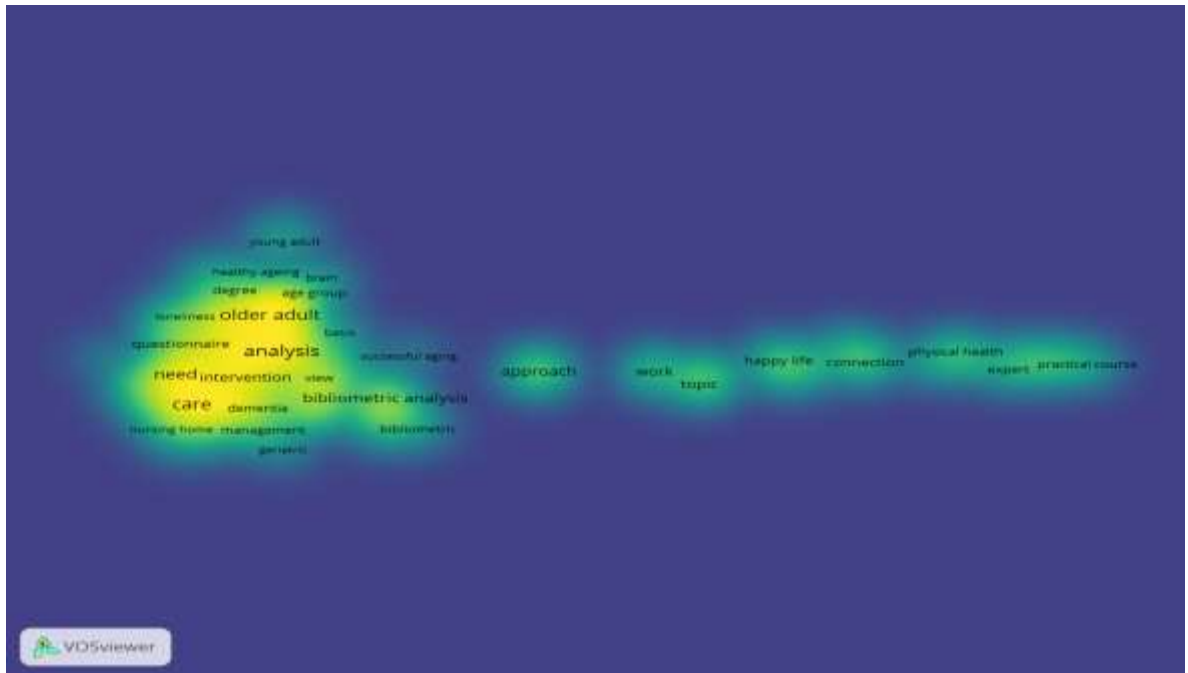


Figure 4. Density Visualization

This visualization illustrates how certain topics are more concentrated. Figure 4 shows the distribution of research themes, with the brightness of each point indicating the level of research activity on that topic. (Pu et al., 2024) Brighter dots reflect areas with more concentrated data points.

In Figure 4, the brightest point is older adults, which aligns with the network visualization, where themes connected to older adults are prevalent. The next brightest area is analysis, representing another significant research focus.

CONCLUSION

The findings reveal that achieving happiness in old age is influenced by various factors, including perception, location, information access, mental health, support systems, country, services, social groups, and emotional well-being. Understanding these factors from the perspective of the elderly themselves is crucial to preparing for an aging society. Future research should address ways to provide meaningful support—through family, social, and religious systems—while empowering the elderly and promoting their mental health, living environment, and overall well-being.

Research Limitations

This study has several limitations. First, certain variables were excluded during the screening stage, potentially affecting the comprehensiveness of the findings. Second, author bias in keyword selection, filtering, and interpretation stages is possible. Lastly, this review did not conduct an extensive content analysis on elderly care. Future research could benefit from a full content analysis to uncover key research areas within this field.

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